

Listing of Claims (replaces prior version):

1. (Cancelled)
2. (Previously Presented) The detonator assembly of claim 37,
wherein said first end and second end that emerge from said plug member, emerge on
opposite sides thereof.
3. (Previously Presented) The detonator assembly of claim 37,
wherein the first end comprises a wire clasp or crimp for grasping the end of a wire
emerging from the signal transmission line.
4. (Cancelled)
5. (Previously Presented) The detonator assembly of claim 37, wherein said at least one
bridge element comprises a metal, a metal alloy, a ceramic, a rigid polymer, or a
semiconductor.
6. (Previously Presented) The detonator assembly of claim 5, wherein said at least one
bridge element consists of a metal and is formed by stamping a template from sheet metal.
- 7-14. (Cancelled)
15. (Previously Presented) The detonator assembly of claim 37, wherein the plug
member includes a portion adapted to extend into and frictionally engage with an internal surface
of the detonator shell at said opening thereof.

16. (Previously Presented) The detonator assembly of claim 37, wherein the plug member further includes an annular recess to receive a detonator crimp, thereby to secure said plug member at said opening of the detonator shell.

17. (Previously Presented) The detonator assembly of claim 37, wherein the plug member includes a threaded portion for threaded engagement with an internal surface of the detonator shell at said opening thereof.

18. (Cancelled)

19. (Previously Presented) The detonator assembly of claim 37, further comprising a sheath element for sheathing at least one electrical connection between said signal transmission line and said at least one bridge element, the sheath element comprising:

(a) an elongate body adapted for association at one end thereof with the electrical connector; and

(b) a longitudinal bore extending therethrough for receiving the signal transmission line and at least a portion of each bridge element.

20. (Previously Presented) The detonator assembly of claim 19, wherein the sheath element is at least partially made of a flexible material.

21. (Previously Presented) The detonator assembly of claim the 19, wherein the sheath element is adapted for releasable engagement with the electrical connector such that the sheath element can be selectively disengaged from the electrical connector to expose said at least one bridge element and/or said at least one electrical connection.

22. (Previously Presented) The detonator assembly of claim 19, wherein the sheath element is permanently fixed to the electrical connector.

23. (Previously Presented) The detonator assembly of claim 19, wherein the sheath element and the electrical connector are unitary in construction.

24. (Previously Presented) The detonator assembly of claim 19, wherein the sheath element further comprises one or more transverse ridges along the body to impart flexibility to the sheath element.

25. (Previously Presented) The detonator assembly of claim 19, wherein the sheath element further comprises a flex point defined by a narrow portion of the elongate body.

26. (Previously Presented) The detonator assembly of claim 21, wherein the releasable engagement is provided by a friction fit or an interference fit.

27-34. (Cancelled)

35. (Previously Presented) The detonator assembly of claim 37, wherein said at least one electrical component is selected from the group consisting of: a printed circuit board or a component thereof, means to allow protection from electrostatic damage to other electronic components of the detonator, a resistor, a varistor, a zener diode, a suppressor diode, an encapsulated integrated circuit, and SO8 packaging, a filter, a capacitor, a spark gap, a small outline integrated circuit, and a rectifier; or alternatively said electrical component is connected to a printed circuit board or a component thereof, means to allow protection from electrostatic damage to other electronic components of the detonator, a resistor, a varistor, a zener diode, a suppressor diode, an encapsulated integrated circuit, or an SO8 packaging, a filter, a capacitor, a spark gap, or small outline integrated circuit, or a rectifier.

36. (Currently Amended) The detonator assembly ~~according to~~ of claim 37, wherein said at least one bridge element is soldered to at least one circuit element of a printed circuit board.

37. (Previously Presented) A detonator assembly comprising:

a detonator comprising:

a detonator shell including a percussion-actuation end and an opening at an end opposite said percussion-actuation end;

a base charge adjacent the percussion-actuation end of the shell; and
initiation means;

wherein the detonator assembly further comprises an electrical connector for secure retention of a signal transmission line to the detonator and comprising:

a body of electrically insulating material adapted to form a plug member for said opening of said detonator shell;

at least one bridge element comprising electrically conductive material extending through said plug member and having a first end and a second end that emerge from said plug member, said at least one bridge element being in electrical contact with at least one electrical component of said detonator; and

retaining means for retaining said at least one bridge element in said plug member to cause said at least one bridge element to resist slippage between said at least one bridge element and said plug member;

said electrical connector being fixed to said detonator shell at least in part by securing said plug member to said opening, said at least one electrical component being retained with the detonator shell, said first end of said at least one bridge element emerging from said plug member and extending away from said detonator shell for electrical contact with a signal transmission line and said second end emerging from said plug member within said detonator shell and in electrical contact with at least one electrical component of the detonator;

the initiation means being associated with said at least one electrical component for transfer of one or more initiation signals to the base charge for actuation thereof in response to the signal(s); and

the first end of the bridge element being configured to maintain an electrical contact with the signal transmission line, the electrical contact being positioned external to the detonator and

the plug member and configured to provide a breakage point for an electrical connection between the signal transmission line and the electrical component of the detonator in the event of an excess force applied to the signal transmission line and the connected detonator to reduce a likelihood of breaking the electrical connection between the signal transmission line and the electrical component of the detonator at a location internal to the detonator or the plug member.

38-41. (Canceled)

42. (Currently Amended) The detonator assembly ~~according to~~ of claim 37, wherein said electrical connector is fixed to said detonator shell at least in part by inserting said plug member into said opening of said detonator shell.